Figure 1

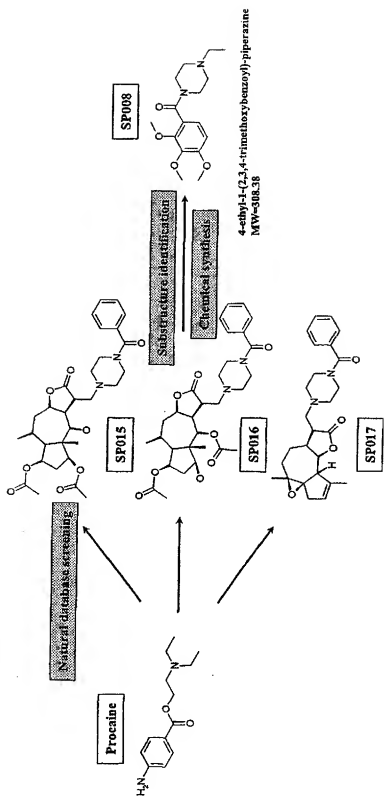

Procaine
Natural database screening
SP015
SP016
SP017
Substructure identification
Chemical synthesis
SP008
4-ethyl-1-(2,3,4-trimethoxybenzoyl)-piperazine
MW=308.38

Figure 2

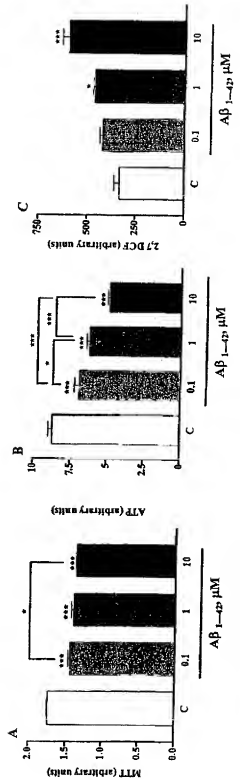

A
MTT (arbitrary units)
2.0
1.5
1.0
0.5
0.0
C
0.1
1
10
Aβ 1–42, μM
B
ATP (arbitrary units)
10
7.5
5
2.5
0
C
0.1
1
10
Aβ 1–42, μM
C
2,7 DCF (arbitrary units)
750
500
250
0
C
0.1
1
10
Aβ 1–42, μM

Figure 3

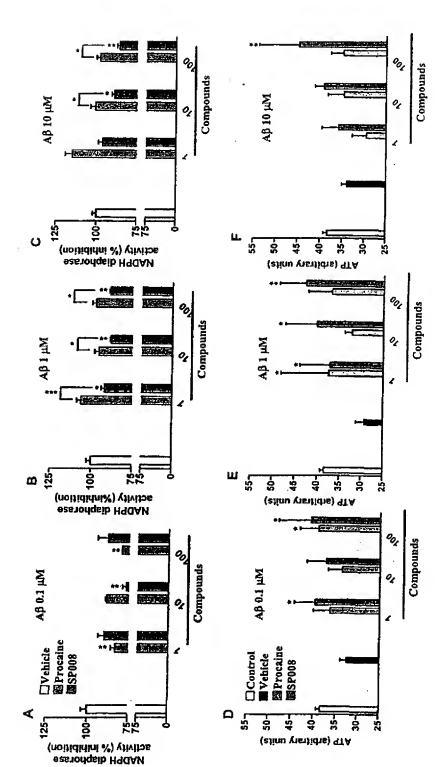
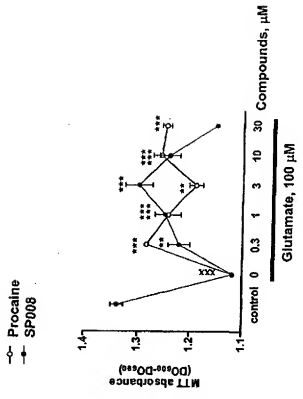

A
B
C
D
E
F
Vehicle
Procaine
SP008
Control
Aβ 0.1 μM
Aβ 1 μM
Aβ 10 μM
NADPH diaphorase activity (% inhibition)
ATP (arbitrary units)
Compounds
1
10
100

Figure 4


Procaine
SP008
MTT absorbance
(D0600-D0690)
1.4
1.3
1.2
1.1
control
0
0.3
1
3
10
30
Compounds, μM
Glutamate, 100 μM